IMPORTANT INFORMATION FOR FUTURE REFERENCE

Record the following information from the appliance ID plate and retain this manual for the life of the equipment:

Model #: _____

Serial #: _____

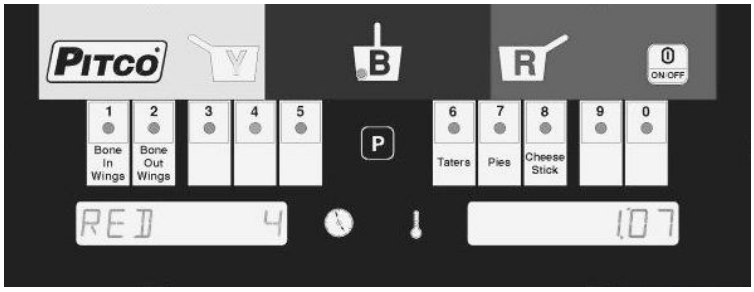
Date Purchased: _____

English

Service Manual

Covering Pitco P/N 60126804 Single Vat Control with Remote Beeper

Pizza Hut WingStreet Fryer Control



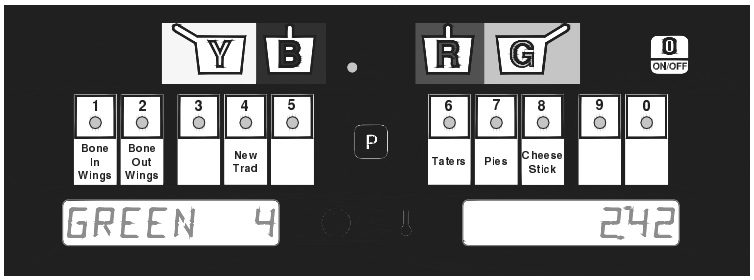
3 Lane Computer for a Fryer with 3 baskets.

Models i.e.:

Gas units: SG14R, SSH55

Electric units: SE14, SE14R

(3 Lane Color Overlay Only replacement P/N is A6090701)



4 Lane Computer for a Fryer with 4 baskets

Models i.e.:

Electric units: SEF184

(4 Lane Color Overlay Only replacement P/N is A6095401)

This computer was developed specifically for Pizza Hut for use on "WingStreet" products. It utilizes the latest in microprocessor technology and is completely solid state. WingStreet computers offer the latest cooking technology, including temperature and time compensation that requires no user adjustment for consistently cooked product. Other features include selectable melt cycles, a remote beeper with volume adjustment, and drain valve interlock. 10 product keys are available to each of 3 or 4 cooking lanes. Each product key may be programmed with cook, shake and hold times to keep pace with changing menus over time.

This manual details the operation and adjustment of the Pizza Hut Fryer Computer. The target audience for this text is the Service Technician. This manual reveals all adjustments that are possible by keyboard entry, including passwords.

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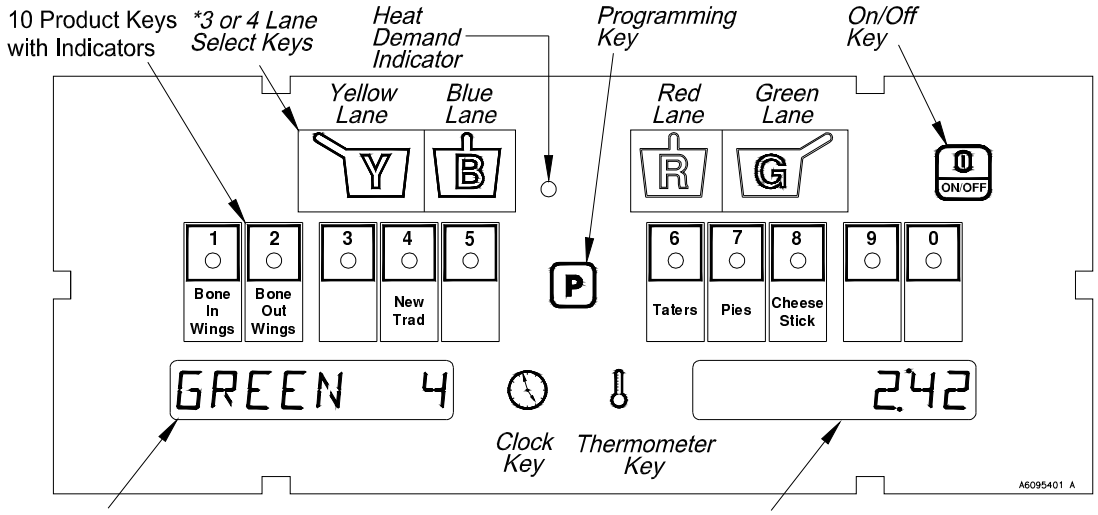
1 Key Locations and Functions:

Computer Overlay (4 Lane Version shown, 3 Lane version is the same except heat demand indicator is in B (Blue) key box.)



Displays show the current operation. Throughout this text, a left only display will be printed as [GREEN 4], or be shown as a graphic GREEN 4. *When both left and right displays should be interpreted together, this text will show them as [GREEN 4] [2:42] or show them as a graphic* GREEN 4 2:42.

**Note: The clear overlay and panel outline shown here is for the 4 lane (4 basket) set up. The default factory settings for this control is 3 lanes colored Yellow, Blue, and Red. With the exception of the lane selection, both setups are identical in operation.*

1.1 To turn the appliance ON:

If power is applied to the appliance, the displays will show OFF. Press the ON/OFF key.

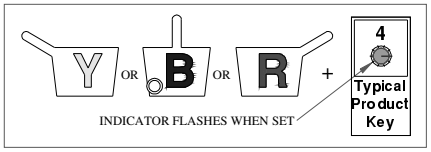
Displays will show one of the following:

MELT; HEATING; or READY. Some messages may show in both left and right displays. Wait for the appliance to heat up to the [READY] condition before cooking.

1.2 To turn the appliance OFF:

Press the ON/OFF key. Display will momentarily show the software version number, and then OFF.

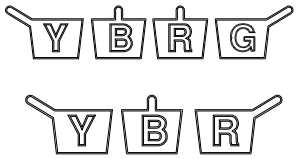
1.3 To start a cook:



When the display is showing READY the appliance has reached set temperature and is ready to cook. Press a basket key then the desired product key. Place cooking basket into the vat. The left display will show the basket color and the product key, while the right display shows the time remaining in the cook. In the example above, GREEN lane is cooking product 4 (left display) with 2 minute and 42seconds remaining (right display).

All cook lanes may run together. While cooks are running, the displays will always show the cook with the least time remaining. Longer running cooks will flash their indicators at a slower rate. Cook time remaining on these keys may be checked by momentarily pressing the basket keys.

1.4 To cancel a cook:



Press and hold a colored basket key to cancel a cook in that lane. The indicator above a running product key will turn off, indicating a canceled cook. If no other cooks are pending, controller displays will return to READY.

1.5 To view Vat temperature:

To view the actual vat temperature, press the key. The display will show ACT 347F or ACT 175C, where "F' is Fahrenheit, and "C" is Celsius. After a few moments, the display will return to [READY], [MELT], [HEATING] or [NOTREADY]-[SET BACK] if no cooks are running.

1.6 To view Cooking Set temperature:

To view the set temperature, press the key *twice*. The display will show SET 350F or SET 177C, where "F' is Fahrenheit, and "C" is Celsius. After a few moments, the display will return to [READY], [MELT], [HEATING] or [NOTREADY]-[SET BACK] if no cooks are running.

1.7 To view Set Back temperature:

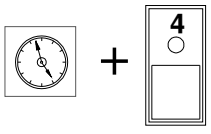
To view the set temperature, press the key *three times*. The display will show SB 250F or SB 121C, where "F' is Fahrenheit, and "C" is Celsius. After a few moments, the display will return to [READY], [MELT], [HEATING] or [NOTREADY]-[SET BACK] if no cooks are running.

1.8 To view Current Settings for Cook, Shake, Hold, and Hold Pre-Alarm:

To view the current settings for any product key, press the key, followed by the desired product key. The display will show [nCK mm:ss], followed by [nSH mm:ss], then [nHD mm:ss], ending with [nPA mm:ss]. Where "n" is the key number, and "mm:ss" is the time setting.

After a few moments, the display will return to MELT; HEATING, READY, or NOTREADY SET BACK when no cooks are running. If cooks are running, the least time remaining will be displayed.

Typical displays using key 4 as an example:

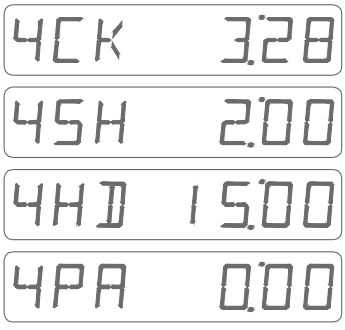


Key 4 **C**oo**k** Time [4CK] is set for 3 minutes and 28 seconds.

Key 4 **S**hake Time [4SH] is set for 2 minutes and :00 seconds before the end of the Cook. *Default value is 00:00, or inactive.*

Key 4 **H**ol**d** Time [4HD] is set for 15:00 minutes. This is the amount of time cooked product may sit in holding bins before a new batch is started. *Default value is 00:00, or inactive.*

Key 4 Hold **P**re-**A**larm [4PA] is set for 00:00 and is inactive (*default setting*). When activated his alarm warns the operators that the Hold Time is about to run out. *Default value is 00:00, or inactive.*



In a few moments, the display to MELT; HEATING, READY, or NOTREADY SET BACK

1.9 Set back Operation: *(For Future Implementation currently DISABLED)*

Operation of the setback features requires set up values be entered (refer to service manual section 3.8). *Factory default settings are with this feature inactive*.

Operation:

Each time a cook is performed, the setback timer is reset. When no cooks occur for the duration of the setback time, the control will enter a setback state and maintain a reduced vat temperature. Both time and temperature of this setback feature are adjustable by the store manager.

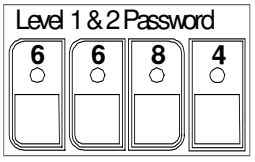
1. When the control is in the setback state, the display will show NOTREADY SET BACK
2. Press *any* colored basket key or product key to exit setback.
3. If the vat temperature is below the READY band, a rapidly pulsing alarm will sound to warn the operator. Display will show LOW TEMP WAIT 959. The m:ss display will show the approximate time needed for the vat temperature to rise to cooking temperature.

Wait for the temperature to return to the READY condition before lowering basket into the fryer.

2 To Enter Programming Level 1 (for the Store Manager):

Note: The factory default setting for this control does not require a password to be entered. However, the password requirement and value may be changed in section 3.2. Entry of a password when NOT required will not interfere with the programming process.

With no cook timers running, displays will show one of the following displays: MELT, HEATING, READY, or NOTREADY SET BACK. Press the P key.

If display shows:	If display shows:
PASS---- PASSWORD, a password is required. Enter password  using the product keys as a numeric keypad for entry. With correct password entry, display will show PROGRAM.	PROGRAM; you do not need to enter a password.

From the PROGRAM display, continue with this section or go to section 3, or 4.

2.1 To Set Cook Temperature:

- Press the key once. The display will show [SET xxxF] [TEMP] or [SET xxxC] [TEMP], where "xxx" is the current temperature setting.
- Use the product keys for numeric entry to adjust the current setting. Press the P key to save setting. Display now shows PROGRAM. To exit here, press P again, or continue.

2.2 To Change a Product Key–Cook, Shake, Hold, and Hold Pre-Alarm Times:

For each product key, Cook, Shake, Hold, and Hold Pre-alarm times are set in this section.

With display showing PROGRAM, continue with the following section for each product key to change.

2.2.1 Cook Time

Cook Time may be set for each product key. To deactivate any product key enter a zero value for cook time.

- Press the key.
- Display will show SELECT PRODUCT. Press the desired product key to change.

The display is now showing [nCK mm:ss] [TIME] where "n" is the key number, "CK" means Cook, and "mm:ss" is minutes and seconds.

- Use the product keys for numeric entry to adjust the current setting. Press the key to save cook time and continue setup for this product key.

2.2.2 Shake Time

Shake time is an alarm that sounds during Cook Time to prompt operators to shake the basket. Default for this value is zero, meaning the Shake Time is inactive. To use Shake Time, the time value must be a non-zero value, and, must be set to a value less than cook time.

- Display shows [nSH mm:ss] [TIME] where "n" is the key number, "SH" means Shake, and "mm:ss" is time in minutes and seconds.
- Use the product keys for numeric entry to adjust the current setting. Press the key to save shake time and continue setup for this product key.

Note: The value entered for shake time is the time from the <u>end</u> of the cook.

2.2.3 Hold Time

Cooked product may stand in holding bins for a period of time. This timer produces an alarm to inform operators to discard old product and start a new cook. *Default for this value is zero, meaning the Hold Time is inactive.*

- Display is showing [nHD mm:ss] [TIME], where "n" is the key number, "HD means HOLD, and "mm:ss" is minutes and seconds.
- Use the product keys for numeric entry to adjust the current setting. Press the key to save hold time and continue setup for this product key.

2.2.4 Hold Pre-Alarm

Hold Pre-Alarm is a timer setting that is used to warn operators that the Hold Time is about to expire. To use Hold Pre-Alarm, the time value must be a non-zero value, and, must be set to a value less than Hold Time. *Default value is zero, meaning the Hold Pre-Alarm is inactive.*

- Display is showing [nPA mm:ss] [TIME] where "n" is the key number, PA means Pre-Alarm, and "mm:ss" is minutes and seconds.
- Use the product keys for numeric entry to adjust the current setting. Press the key to save pre-alarm time. *Note: Value entered for hold pre-alarm time is the time from the end of the hold period.*

Display will again return to SELECT PRODUCT. Repeat steps from section 2.2 to make changes to any other product keys *or continue*.

2.3 To Exit Level 1 programming:

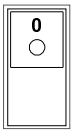
Display shows SELECT PRODUCT.

Press the P key. Display shows PROGRAM. Continue to section 3 "To Change Options", or, exit here in the next step.

To exit Level 1 programming, press the P key again.

Displays will show MELT; HEATING, or READY, when no active cooks are running.

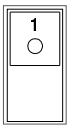
3 To Change Options Level 2 (for the Store Manager):



The display must show PROGRAM from section 2 to change these options. When the product key [0] is pressed, the display will show SELECT OPTIONS. Indicator lights above product keys will illuminate to represent options that may be changed. Each option listed below uses the product key [0] to toggle or scroll through available choices in the display. When the correct value is displayed, press the P key to save choice. The display will again return to PROGRAM for another option selection.

3.1 Fahrenheit or Celsius Display:

The Controller will display temperatures in the Fahrenheit or Celsius scales. The default scale is °F. With display showing PROGRAM, press the product key [0].

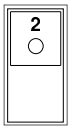


- Display shows SELECT OPTIONS.
- Press product key **1**, display shows [DEGREE n] [F OR C], where "n" is the current setting.
- Use the product key [0] to scroll through choices (F or C). Press P key to save choice.
- Display shows PROGRAM.

3.2 Password Change or Required?

With factory settings, an operator password is not required to enter programming Levels 1 and 2. The password may be activated or changed in these steps.

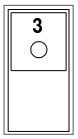
With display showing PROGRAM, press the product key [0].



- Display will show SELECT OPTIONS.
- Press product key **2**, display shows [SET PAS] [NEW PASS]. Use the product key [0] to scroll through choices [NO PASS] or [PASS REQ]. Press P key to save choice.
- *If [NO PASS] is selected* Display returns to PROGRAM.
- *If [PASS REQ]. is selected*, display will show [PASSnnnn] [NEW PASS] to prompt for new password. Displayed value "nnnn" is the current password. Use the product keys for numeric entry to change password. Press P key to save choice. Display then shows PROGRAM.

Note: The factory default password (6684) will always work even if a different password is selected here.

3.3 Beeper Volume and Tone:

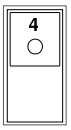


Volume and Tone of the beeper alarm may be changed in this section. Volume ranges are 1,2, and 3, where 3 is the loudest setting. This model also has a selection for tone.

With display showing PROGRAM, press the product key [0].

- Display will show SELECT OPTIONS. Press product key **3**, display shows [VOLUME n] [BEEPER].
- Use the product key [0] to scroll through choices (n= 1,2,3, or T). Beeper volume will change as each selection is made.
- If "T" is selected an additional display is shown, [TONE n] [BEEPER]. Use the product key [0] to scroll through choices (n= 1,2,3). Beeper tone will change as each selection is made.
- Press P key to save choice. Display shows PROGRAM.

3.4 Language Selection:

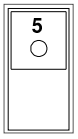


With display showing PROGRAM, press the product key [0].

- Display will show SELECT OPTIONS.
- Press product key **4**, display shows [ENGLISH] [LANGUAGE].
- Use the product key [0] to scroll through choices (ENGLISH, ESPANOL, FRANCAIS, DEUTSCH, HOLLAND).
- Press P key to save choice. Display shows PROGRAM.

3.5 Melt Cycle Type:

This adjustment allows selection of the melt cycle type and requirement when starting the appliance from a cold start.



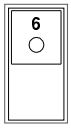
With display showing PROGRAM, press the product key [0].

- Display will show SELECT OPTIONS.
- Press product key **5**, display shows [LIQUID], the default setting.
- Use the product key [0] to scroll through choices (liquid, solid, or, no melt).
- Press P key to save choice. Display will again return to PROGRAM.

3.6 Recovery Test Value:

This controller maintains a record of heat up times for the appliance. A poorly running appliance will have increased recovery times stored in this display. There is no selection done here, just the display of recovery time values.

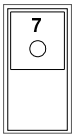
With display showing PROGRAM, press the product key [0].



- Display will show SELECT OPTIONS.
- Press product key **6**; display will show [RECOVERY] [TEST].
- Press the product key [0]. Display will show [FnnnLyyy], where nnn is the factory recovery value, and yyy is the last warm- up recovery value.
- After recording these values, press the P key. Display will again return to PROGRAM.

3.7 Control or Timer Selection:

With display showing PROGRAM, press the product key [0].

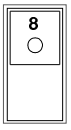


- Display will show SELECT OPTIONS.
- Press product key **7**; display will show [CONTROL].
- Use the product key [0] to scroll through choices; Control or Timer.
- Press P key to save choice. Display shows PROGRAM.

Note: If timer is selected, heat control outputs are disabled, leaving only the timer functions active. Do not make this selection on Solstice fryer models.

3.8 Lane Selection 3 or 4:

Computer P/N 60126804 offers a selection of 3 or 4 active cook lanes. In the three lane mode, the control responds to basket key location shown on the cover of this manual. Lanes are defined as Yellow, Blue, and Red. In the four lane mode, lane colors are Yellow, Blue, Red, and Green. To change to four lane mode follow these steps.



With display showing PROGRAM, press the product key [0].

- Display will show SELECT OPTIONS.
- Press product key **8**; display will show [LANES n] [3 or 4], where n is the default setting.
- Use the product key [0] to scroll through choices.
- Press P key to save choice. Display shows PROGRAM.

Factory default setting is for 3 Lane Control.

3.9 Setback Time and Temperature settings:

With display showing PROGRAM, press the product key [0].

- Display will show SELECT OPTIONS.
- Press key [9]. Display shows, [TIME nn] [SET BACK], where nn is the time the control must be idle (not cooking) to enter the setback state. *The default setting is 00, meaning that the setback feature is disabled. Entry on any non-zero value will activate this feature.*
- Enter the number of minutes [nn] using the numbered keys 0 … 9.

The valid range of time entry is 0 to 99 minutes. Entering 00 will disable the setback feature. Typical values are 30 minutes.

- Press P key to save.
- Display shows TMP 250F SET BACK.
- Enter a new setback temperature using the numbered keys 0 … 9.

The valid range of temperature entry is 225 to (SetPoint -15) °F. Factory default value is 275°F.

- Press P key to save setting. Display shows PROGRAM.

3.10 To Exit Programming Level 2

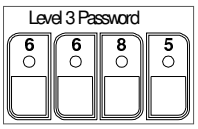
With display showing PROGRAM, press the P key.

Display will return one of the normal displays: MELT, HEATING, READY, *or* NOTREADY SET BACK ..

4 To Enter Programming Level 3 (for the Technician)

With no cook timers running, displays will show one of the following displays:

MELT ; HEATING , or READY .

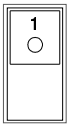
- Press the P key. The left display will show PROGRAM . The right display will be blank.
- Enter password 

using the product keys as a numeric keypad for entry.
- Display will show SERVICE . Product key indicators will illuminate to prompt operator to select a key. This section details parameters that may be changed in Level 3 programming.

4.1 Offset the Temperature Display:

This adjustment allows the displayed temperature value to be offset to reflect the true center vat temperature while reading the probe tip temperature. Default value is zero. With zero value set, displayed values are the probe temperature.

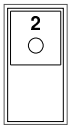
With display showing SERVICE press product key **1**.



- Display shows [OFF nn F] [DEGREES], where “nn” is the value of the adjustment. Negative values are preceded with a minus sign.
- To change this value, use the product keys for numeric entry of a new value.
- Press the P key. Display will show [POSITIVE] [DEGREES].
- Use the product key [0] to scroll choices (Positive or Negative value). After selection, press the P key. Display returns to SERVICE .

4.2 Melt Cycle ON Time

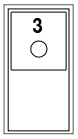
With display showing SERVICE press product key **2**.



- Display shows [MLTON :nn] [MELT ON], where “nn” is the value, in seconds, of time for a melt cycle heat pulse.
- To change this value, use the product keys for numeric entry of a new value.
- Press the P key. Display returns to SERVICE .

4.3 Minimum ON and OFF Cycle Time

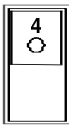
With display showing SERVICE press product key **3**.



- Display shows [MIN ON:nn] [MIN ON], where “nn” is the value, in seconds, of time for minimum heat pulse period.
- To change this value, use the product keys for numeric entry of a new value, then press the key to save.
- Display shows [MIN OFF:nn] [MIN OFF], where “nn” is the value, in seconds, of time for minimum heat off period. Use the product keys for numeric entry of a new value.
- Press the P key. Display now shows SERVICE.

4.4 Recovery Time

With display showing SERVICE press product key **4**.



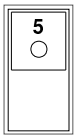
- Display shows [RECY nnn] [RECOVERY], where nnn is the last cold start recovery time. No adjustments are permitted here. This is an information display only.
- Press the P key. Display returns to SERVICE.

4.5 Diagnostic Menu Entry

The diagnostic menu is used to determine the functionality of controller outputs and inputs. By exercising each output and examining inputs, a determination can be made if an appliance problem is controller related. In the diagnostic menu, product keys are assigned specific inputs or outputs.

All outputs in the ON state should produce 22VDC at the appropriate pins on the controller connector. Controller inputs can be verified by the on or off state of the indicator above the product key. This section details the process of checking each input and output.

- With display showing SERVICE press product key **5**.



- Display will show [DIAGNOST] [DIAGNOST].

The following list describes the function of each key in the diagnostic mode.

4.5.1 Left Basket Lift Output

Press the product key 1 to toggle the left basket lift output ON. Display will show [L BASKET]. Press again to toggle output OFF.

4.5.2 Right Basket Lift Output

Press the product key 2 to toggle the right basket lift output ON. Display will show [R BASKET]. Press again to toggle output OFF.

4.5.3 Heat Demand Output

Press and hold the product key 3 to force Heat Demand output ON. Display will show [HEAT DEM]. Releasing the key will force output OFF.

4.5.4 Side On Output

Press the product key 4 to toggle the Side ON output ON. Display will show [SIDE ON] Press again to toggle output OFF.

4.5.5 Drain Switch Input

Press the product key 5. Display will show state of the Drain Valve input. Display will show [DRN ON (or OFF)]. Product key 5 indicator shows the ON or OFF state of the input.

4.5.6 Lamp Test

Press the product key 6. All display indicators will be forced on. The purpose is to reveal non-functional indicators or displays.

4.5.7 Heat Feedback Input

Press the product key 7. Display will show state of the Heat Feedback input [FB xxx], where xxx is ON or OFF. Key 7 indicator shows the ON or OFF state of this input.

4.5.8 Exit Diagnostic Menu

To exit diagnostic menu, press the P key. Display will return to SERVICE.

Other service menu items may be selected for changes.

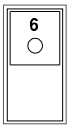
To return to programming, press the P key again. Display will show PROGRAM.

Other settings can be made in section 2.

To return to normal operations, press the P key again. Display will show one of the normal displays: MELT; HEATING, or READY.

4.6 Ready Level

With display showing SERVICE press product key 6.

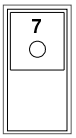


Display shows [READY nn], where “nn” is the value, in degrees below set temperature that the READY message is displayed.

- To change this value, use the product keys for numeric entry of a new value.
- Press the P key. Display now shows SERVICE.

4.7 Temperature Operating Range

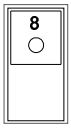
Forces the control to display the range of temperatures that may be set by operators.



With display showing SERVICE press product key **7**.

Display shows [RANGE 1] [200 380]. No adjustments are permitted here. This is an information display only. Press the P key. Display returns to SERVICE.

4.8 More Service Menu Entry



With display showing SERVICE press product key **8** to enter submenu. Display now shows MORE SERVICE.

Product keys will illuminate where adjustments are permitted; all other keys are inactive. The following section details each product key function in the MORE SERVICE menu.

4.8.1 Cook Now

Should operators be forced to acknowledge a Cook Done Alarm before starting another cook? This setting forces that requirement. *Factory default value is OFF.*

- With display showing MORE SERVICE, press product key **1**.
- Display will show [NOW xxx] [COOK NOW], where "xxx" is ON or OFF.
- Use product key [0] change value. Press the P to save choice.
- Display returns to MORE SERVICE.

Note: With OFF value selection, operators must acknowledge a done cook [DONE n] display before starting any another cooks.

With an ON value, operators are permitted to start a cook on the opposite side before acknowledging a cook done alarm.

Example: The left display is showing [DONE 2] with the beeper alarm sounding. Indicator 2 is flashing needing to be acknowledged. All other product indicators are off.

With a set value of OFF, no other cooks can start until product key 2 is pressed to acknowledge and clear the cook done alarm.

With a value of ON set, a cook on the right side of the control (keys 6-R) may be started before operator clears the cook done alarm for product key #2 on the left side.

4.8.2 Turbo Select (Single Only)

With display showing MORE SERVICE, press product key **3**. Display will show [TRBO OFF] [TURBO]. This setting is for use on Pitco's Turbo-Fry appliance. It should remain OFF for all other applications.

- Use product key [0] change value, then press the P to save choice.
- Display returns to MORE SERVICE.

4.8.3 Heat Demand Profile

With display showing MORE SERVICE, press product key **3**. Display will show [xxxxxxx] [HEAT DEM], where xxxxxxx may be one of 5 heat control profiles listed below.

1. [GENERIC 1] for gas fired fryer appliance. *This is the factory default.*
2. [GENERIC 2] for electric fryer appliances, for example model SE184.
3. [T-STAT] control operates as a mechanical thermostat for general applications on gas or electric fryers. This setting offers the quickest possible recovery times at the expense of temperature overshoot suppression.
4. [HE RPB] for use with High Efficiency RPB models only.
5. [HE ADV] for use with High Efficiency Advance models only.

Use product key [0] change value, then press the **P** to save choice Display returns to MORE SERVICE.

4.8.4 Shake Alarm Duration

With display showing MORE SERVICE, press product key **4**. Display will show [SH-DUR:nn] [DURATION], where "nn" is the time in seconds the shake alarm will sound. Use product keys for numeric entry of desired value, then press the **P** to save choice. Display returns to MORE SERVICE.

4.8.5 Hold Alarm Duration

With display showing MORE SERVICE, press product key **5**. Display will show [HD-DUR:nn] [DURATION], where "nn" is the time in seconds the hold alarm will sound. Use product keys for numeric entry of desired value, then press the **P** to save choice. Display returns to MORE SERVICE.

4.8.6 Cancel Duration

With display showing MORE SERVICE, press product key **6**. Display will show [CANCEL:nn] [DELAY] , where "nn" is the time in seconds the operators must press a product key to cancel a cook. Use product keys for numeric entry of desired value, then press the **P** to save choice. Display returns to MORE SERVICE. Default value is 2 seconds.

4.8.7 Configuration Value

With display showing MORE SERVICE, press product key **7**. Display will show [CFG hhhh], where "hhhh" is a hexadecimal check sum of the program contained in the controller. Modifications to any part of the setup of this control will change the check sum value. Press the **P** display will return to MORE SERVICE.

4.8.8 Factory Reset

Factory Reset provides a quick way to erase all setup changes and restore control to factory settings.

Warning: Any settings made prior to a factory reset will be lost. This includes customer specific downloads performed at Pitco Frialator. Heat profile after a reset is Generic 1 for gas appliances.

With display showing MORE SERVICE, press **8** product key. After a few moments, the display will show [P]. Press the **P** display will return to MORE SERVICE.

4.8.9 Standing Pilot Toggle

For some applications, it is desirable to maintain the gas pilot flame when the appliance is OFF. Heat from the pilot keeps solid shortening in the liquid state for quicker warm-ups in the morning. Default setting for standing pilot is off.

Note: Heat Demand Profile (section 4.8.3) must be set to Generic 1, or T-stat. Standing Pilot toggle has no effect in with any other setting.

With display showing [MORE] [SERVICE], press product key **9**. Display will show [STANDING] [PILOT n], where "n" is ON or OFF. Use product key [0] change value, then press the [P] to save choice. Display returns to [MORE] [SERVICE].

4.8.10 Exit More Service sub menu

With display showing [MORE] [SERVICE], press [P] key.

Display will show [SERVICE]. Continue with Level 3 programming in this section (display showing [SERVICE]), or continue.

4.9 To Exit Programming Level 3

With display showing [SERVICE], press the [P] key.

- Display will show [PROGRAM]. Continue with changes in sections 2 or3, or continue exit with the next step.
- To return to normal operations, press the [P] key again.

Display will return one of the normal displays: [MELT]; [HEATING], or [READY].

5 Factory Menu Level 4 (for the Technician)

With no cook timers running, displays will show one of the following displays: [HEATING], [MELT], or [READY]. Press the **P** program key. Left display will show [PROGRAM]. Right display will be blank.

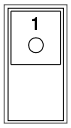
Enter password number 1993 using the product keys as numeric keypad for entry.

Display will show FACTORY. The key indicators will illuminate to prompt operator to select a key. This section details parameters that may be changed in Factory menu.

5.1 Offset Temperature Display

This adjustment allows the displayed temperature value to be offset to reflect the true center vat temperature while reading the probe tip temperature. Default value is zero. With zero value set, displayed values are the probe temperature.

With display showing FACTORY press product key **1**.

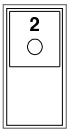


- Display shows [OFF nn F] [DEGREES], where “nn” is the value of the adjustment.
- Negative values are preceded with a minus sign. To change this value, use the product keys for numeric entry of a new value.
- Press the **P** key. Display will show [POSITIVE] [DEGREES]. Use the product key to scroll choices (Positive or Negative value).
- After selection, press the **P** key. Display shows FACTORY.

Note: Computer Display Temp – Center Vat Temp = Offset (+/-). Example: Computer Display shows 350F while Center Vat Temp measures 352F. 350F – 352F = - 3 °F. A negative offset value. Proper equipment and expertise is required to correctly adjust this value. Even small changes may negatively effect cooking performance.

5.2 Melt Cycle ON Time

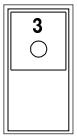
With display showing FACTORY press product key **2**.



- Display shows [MLTON :nn] [MELT ON], where “nn” is the value, in seconds, of time for a melt cycle heat pulse.
- To change this value, use the product keys for numeric entry of a new value.
- Press the **P** key. Display returns to FACTORY.

5.3 Minimum ON and OFF Cycle Time

With display showing [FACTORY] press product key **3**.

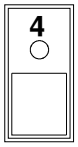


- Display shows [MIN ON:nn] [MIN ON], where “nn” is the value, in seconds, of time for minimum heat pulse period.
- To change this value, use the product keys for numeric entry of a new value, then press the key to save.
- Display shows [MIN OFF:nn] [MIN OFF], where “nn” is the value, in seconds, of time for minimum heat off period. Use the product keys for numeric entry of a new value.
- Press the **P** key. Display now shows [FACTORY].

5.4 Recovery Test Values

This controller maintains a record of heat up times for this appliance. A poorly running appliance will have increased recovery times stored in this display. There is no selection done here, just the display of recovery time values.

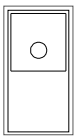
With display showing [FACTORY] press product key **4**.



- Display will show [RECOVERY] [TEST].
- Press the product key [0]. Display will show [FnnnLyyy], where nnn is the factory recovery value, and yyy is the last warm- up recovery value.
- After recording these values, press the **P** key. Display will again return to [FACTORY].

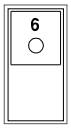
5.5 Diagnostic Menu Entry

This menu is identical to Diagnostic Menu section 4.5 except [FACTORY] *is displayed instead of [SERVICE].*



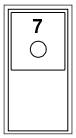
5.6 Ready Level

With display showing [FACTORY] press product key **6**.



- Display shows [READY nn], where “nn” is the value, in degrees below set temperature that the READY message is displayed.
- To change this value, use the location keys for numeric entry of a new value.
- Press the **P** key. Display now shows [FACTORY].

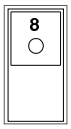
5.7 Operating Temperature Range



With display showing FACTORY press product key **7**. This forces the control to display the range of temperatures that may be set by operators.

Display shows [RANGE] [200 380]. No adjustments are permitted here. This is an information display only. Press the **P** key. Display returns to FACTORY.

5.8 High Limit Value



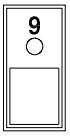
With display showing FACTORY press product key **8**.

- Pressing product key 8 forces the control to display the temperature *above set temperature*, the high limit alarm will sound. Changes may be made buy using the location keys for numeric entry. Press the **P** key.

  Display now shows FACTORY.

Factory default value is 40°F over set temperature, or 320°F absolute, whichever is less.

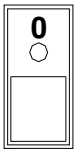
5.9 Basket Lift



With display showing FACTORY; press key **9**.

- Display will show L BASKET 2; where the number is the current setting for basket lift outputs. Use product key [0] to scroll through choices:
  0 = no basket lift outputs
  1 = one basket lift output for all keys.
  2 = two outputs – keys L-5 on left side, 6-R on the right.
- Press the **P** to save choice. . Display returns to FACTORY.

5.10 Test On/Off



With display showing FACTORY press product key **9**.

Display shows [TEST xx], where "xx" is ON or OFF. If ON is selected, temperatures displayed by the controller are probe tip temperatures unaltered by values set in section 4.1, or 5.1. *For normal operations, this setting should remain OFF.*

To change this value, use product key 0 to toggle choice (ON or OFF).

Press the **P** key. Display now shows FACTORY.

5.11 To Exit Factory Menu (Level 4):

To exit Factory Programming, Press the **P** key. Display will show PROGRAM. Continue with settings in section 2 or 3, or exit in the next step.

To return to normal operations, press the **P** key again.

- MELT; HEATING, or READY.

6 Other Displays:

Open probe detection is standard on all Pitco controls. If probe is detected open, normal heating and cooking activities are suspended.

This display warns operators that the vat temperature has exceeded set temperature by +40°F (+22°C), or an absolute maximum of 410°F (210°C). This display does NOT show the status of the mechanical high limit switch.

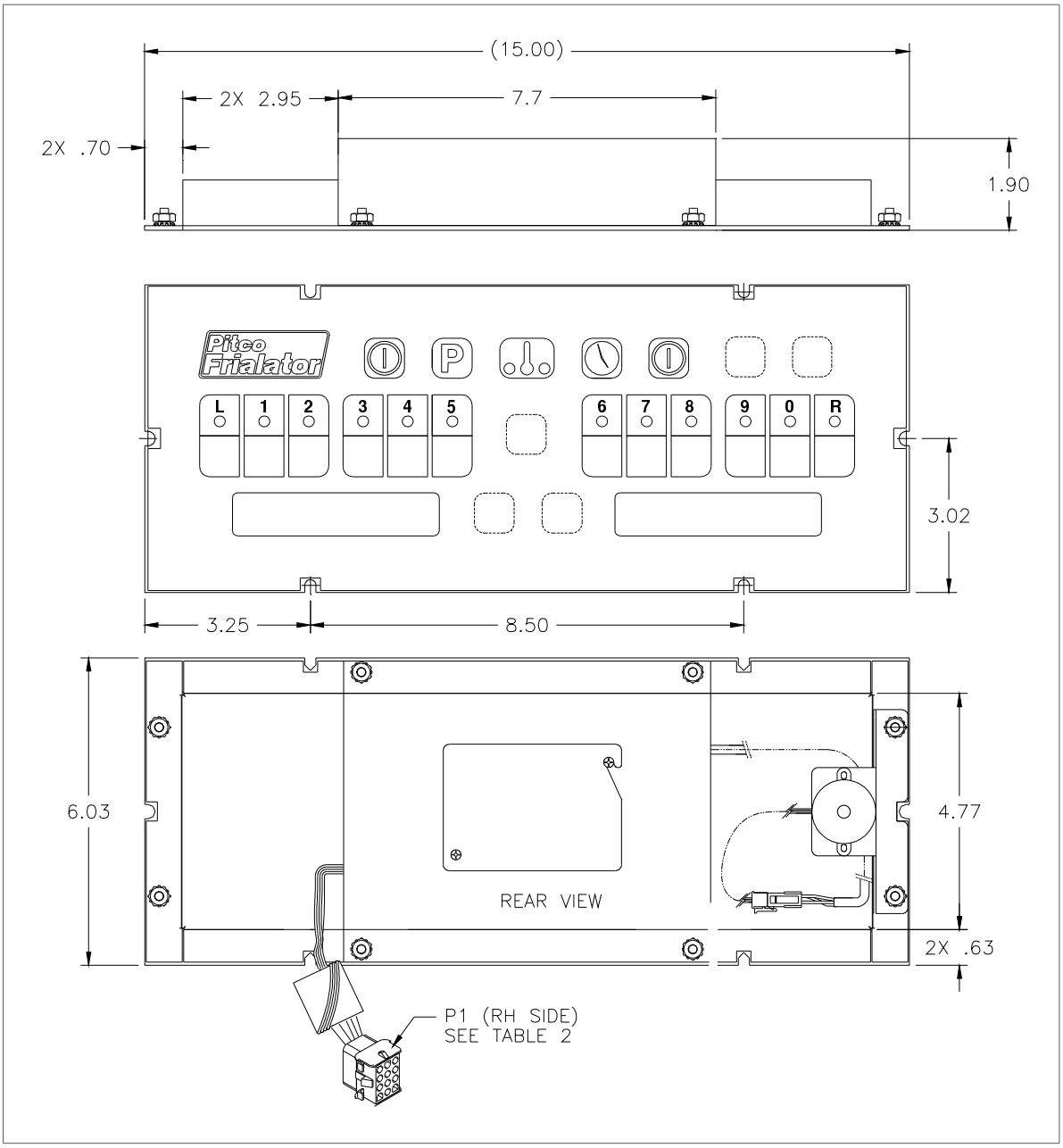
This message indicates that the drain valve has been opened, the vat is assumed to be empty by the controller. Normal heat control activities are suspended. To restore to normal operation, close the drain value. Display will show [TURN OFF] [TURN OFF].

Turn controller off, and refill the vat. Continue with normal operations at section 1.

This message indicates that the heating system failed to respond. Typically, the high temperature limit switch has tripped and is in need of resetting. In the case on gas fired appliances, this message will display if the pilot fails to light or is detected marginal by the ignition module.

This message indicates a shorted probe. If probe is detected as a short circuit, normal heating and cooking activities are suspended.

7 Mechanical Dimensions:



8 Electrical Connections:

Turn power completely off to the fryer before disconnecting or connecting the computer from its wiring harness. Permanent computer damage may occur if this practice is not followed.

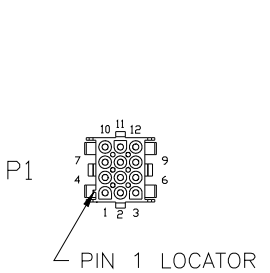


TABLE 2 –CONNECTIONS AT P1 AND P2 FOR PITCO P/N 60126804

PIN #	TYPE		DESCRIPTION
1	24V AC NOTE 2	POWER	24 VAC POWER IN
2			24 V POWER RET
3	RESISTIVE	INPUT	PROBE +
4			PROBE –
5	24V AC	INPUT	DRAIN SWITCH
6			HEAT FEED BACK
7	24V DC	POWER	DC RETURN
8	24V DC	OUTPUT	HD OUT
9			SIDE ON
10			RIGHT BASKET LIFT
11			LEFT BASKET LIFT
12	NO CONNECTION		NOT USED

Tip: Use the diagnostic menu to verify operation of outputs, and inputs.

9 Probe Resistance Chart:

Probe Resistance in 5°F Increments.								
Probe Temp (°F)	**Probe Temp (°C)**	**Resistance (Ohms)**	**Probe Temp (°F)**	**Probe Temp (°C)**	**Resistance (Ohms)**	**Probe Temp (°F)**	**Probe Temp (°C)**	**Resistance (Ohms)**
10	-12.2	562734	175	79.4	11719	340	171.1	1058.23
15	-9.4	483875	180	82.2	10716	345	173.9	998.09
20	-6.7	417167	185	85.0	9812	350	176.7	942.00
25	-3.9	360589	190	87.8	8995	355	179.4	889.67
30	-1.1	312474	195	90.6	8255	360	182.2	840.78
35	1.7	271446	200	93.3	7586	365	185.0	795.10
40	4.4	236370	205	96.1	6979	370	187.8	752.38
45	7.2	206311	210	98.9	6427	375	190.6	712.41
50	10.0	180491	215	101.7	5926	380	193.3	674.95
55	12.8	158252	220	104.4	5470	385	196.1	639.87
60	15.6	139055	225	107.2	5055	390	198.9	606.96
65	18.3	122489	230	110.0	4675	395	201.7	576.09
70	21.1	108051	235	112.8	4329	400	204.4	547.09
75	23.9	95539	240	115.6	4013	405	207.2	519.86
80	26.7	84644	245	118.3	3723	410	210.0	494.24
85	29.4	75136	250	121.1	3458	415	212.8	470.16
90	32.2	66823	255	123.9	3214	420	215.6	447.49
95	35.0	59540	260	126.7	2991	425	218.3	426.13
100	37.8	53146	265	129.4	2785	430	221.1	406.02
105	40.6	47523	270	132.2	2597	435	223.9	387.04
110	43.3	42569	275	135.0	2422	440	226.7	369.14
115	46.1	38195	280	137.8	2262	445	229.4	352.24
120	48.9	34328	285	140.6	2113.9	450	232.2	336.29
125	51.7	30902	290	143.3	1977.3	455	235.0	321.21
130	54.4	27862	295	146.1	1851.0	460	237.8	306.94
135	57.2	25161	300	148.9	1734.3	465	240.6	293.46
140	60.0	22755	305	151.7	1626.1	470	243.3	280.69
145	62.8	20610	310	154.4	1525.9	475	246.1	268.61
150	65.6	18695	315	157.2	1433.0	480	248.9	257.15
155	68.3	16981	320	160.0	1346.7	485	251.7	246.30
160	71.1	15446	325	162.8	1266.6	490	254.4	236.00
165	73.9	14069	330	165.6	1192.1	495	257.2	226.24
170	76.7	12823	335	168.3	1122.8	500	260.0	216.96

Notes: The resistance of either probe lead to the frame of the appliance should read as “open’ on the meter. Typically this is 1Meg ohms or more.

°C = 5/9 (°F-32)

°F = (9/5 * °C) +32

Notes

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Notes

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In the event of problems with or questions about your order, please contact the Pitco Frialator factory at (800) 258-3708 US and Canada only (603) 225-6684 World Wide	In the event of problems with or questions about your equipment, please contact the Pitco Frialator Authorized Service and Parts representative (ASAP) covering your area, or contact Pitco at the numbers listed to the left.

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